

No convincing scientific evidence that hangover cures work, according to new research

Peer reviewed: Yes

Method of research: Systematic review

Subject of study: People

A new systematic review has found only very low-quality evidence that substances claiming to treat or prevent alcohol-induced hangover work.

The researchers call for more rigorous scientific exploration of the effectiveness of these remedies for hangovers to provide practitioners and the public with accurate evidence-based information on which to make their decisions.

Numerous remedies claim to be effective against hangover symptoms; however, up-to-date scientific examination of the literature is lacking. To address this gap, a team of researchers from King's College London and South London and Maudsley NHS Foundation Trust conducted a systematic review to consolidate and assess the current evidence for hangover treatments.

The study, published today by the scientific journal *Addiction*, assessed 21 placebo-controlled randomised trials of clove extract, red ginseng, Korean pear juice, and other hangover cures. Although some studies showed statistically significant improvements in hangover symptoms, all evidence was of very low quality, usually because of methodological limitations or imprecise measurements. In addition, no two studies reported on the same hangover remedy and no results have been independently replicated.

Of the 21 included studies, eight were conducted exclusively with male participants. The studies were generally limited in their reporting of the nature and timing of alcohol challenge that was used to assess the hangover cures and there were considerable differences in the type of alcohol given and whether it was given alongside food.

Common painkillers such as paracetamol or aspirin have not been evaluated in placebo controlled randomised controlled trials for hangover

According to the researchers, future studies should be more rigorous in their methods, for example by using validated scales to assess hangover symptoms. There is also a need to improve the participation of women in hangover research.

Lead author Dr. Emmert Roberts says "Hangover symptoms can cause significant distress and affect people's employment and academic performance. Given the continuing speculation in the media as to which hangover remedies work or not, the question around the effectiveness of substances that claim to treat or prevent a hangover appears to be one with considerable public interest. Our study has found that evidence on these hangover remedies is of very low quality and there is a need to provide more rigorous assessment. For now, the surest way of preventing hangover symptoms is to abstain from alcohol or drink in moderation."

The hangover cures assessed in this study included Curcumin, Duolac ProAP4 (probiotics), L-cysteine, N-Acetyl-L-Cysteine (NAC), Rapid Recovery (L-cysteine, thiamine, pyridoxine and ascorbic acid), Loxoprofen (loxoprofen sodium), SJP-001 (naproxen and fexofenadine), Phyllpro (Phyllanthus amarus), Clovinol (extract of clove buds), Hovenia dulcis Thunb. fruit extract (HDE),

Polysaccharide rich extract of Acanthopanax (PEA), Red Ginseng, Korean Pear Juice, L-ornithine, Prickly Pear, Artichoke extract, 'Morning-Fit' (dried yeast, thiamine nitrate, pyridoxine hydrochloride, and riboflavin), Propranolol, Tolfenamic acid, Chlormethiazole, and Pyritinol.

-- Ends --

For editors:

This paper is free to download after the embargo lifts for one month from the Wiley Online Library: <https://onlinelibrary.wiley.com/doi/10.1111/add.15786> or by contacting Jean O'Reilly, Editorial Manager, *Addiction*, jean@addictionjournal.org.

To speak with lead author Dr Emmert Roberts please contact the National Institute for Health Research (NIHR) Maudsley Biomedical Research Centre Communications & Engagement Manager: Franca Davenport on franca.davenport@kcl.ac.uk or +44 (0) 7976 918968

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Addiction is a monthly international scientific journal publishing peer-reviewed research reports on alcohol, substances, tobacco, and gambling as well as editorials and other debate pieces. Owned by the Society for the Study of Addiction, it has been in continuous publication since 1884.

The labels have been added to this press release as part of a project run by the Academy of Medical Sciences seeking to improve the communication of evidence. For more information, please see: <http://www.sciencemediacentre.org/wp-content/uploads/2018/01/AMS-press-release-labelling-system-GUIDANCE.pdf>

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